

# STD Surveillance Case Definitions

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## PART 1. CASE DEFINITIONS<sup>1</sup> FOR NATIONALLY NOTIFIABLE INFECTIOUS DISEASES

### Chancroid (Revised 9/96)

#### *Clinical description*

A sexually transmitted disease characterized by painful genital ulceration and inflammatory inguinal adenopathy. The disease is caused by infection with *Haemophilus ducreyi*.

#### *Laboratory criteria for diagnosis*

- Isolation of *H. ducreyi* from a clinical specimen

#### *Case classification*

*Probable*: a clinically compatible case with both a) no evidence of *Treponema pallidum* infection by darkfield microscopic examination of ulcer exudate or by a serologic test for syphilis performed  $\geq 7$  days after onset of ulcers and b) either a clinical presentation of the ulcer(s) not typical of disease caused by herpes simplex virus (HSV) or a culture negative for HSV.

*Confirmed*: a clinically compatible case that is laboratory confirmed

### Chlamydia trachomatis, Infection (Revised 6/09)

#### *Clinical description*

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

#### *Laboratory criteria for diagnosis*

- Isolation of *C. trachomatis* by culture or
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid

#### *Case classification*

*Confirmed*: a case that is laboratory confirmed

### Gonorrhea (Revised 9/96)

#### *Clinical description*

A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. Infection may be asymptomatic.

## Laboratory criteria for diagnosis

- Isolation of typical gram-negative, oxidase-positive diplococci (presumptive *Neisseria gonorrhoeae*) from a clinical specimen, or
- Demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or nucleic acid, or
- Observation of gram-negative intracellular diplococci in a urethral smear obtained from a male

## Case classification

*Probable:* a) demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a female or b) a written morbidity report of gonorrhea submitted by a physician

*Confirmed:* a case that is laboratory confirmed

## Syphilis (All Definitions Revised 9/96)

Syphilis is a complex sexually transmitted disease that has a highly variable clinical course. Classification by a clinician with expertise in syphilis may take precedence over the following case definitions developed for surveillance purposes.

### Syphilis, primary

#### Clinical description

A stage of infection with *Treponema pallidum* characterized by one or more chancres (ulcers); chancres might differ considerably in clinical appearance.

#### Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, direct fluorescent antibody (DFA-TP), or equivalent methods

#### Case classification

*Probable:* a clinically compatible case with one or more ulcers (chancres) consistent with primary syphilis and a reactive serologic test (nontreponemal: Venereal Disease Research Laboratory [VDRL] or rapid plasma reagin [RPR]; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS] or microhemagglutination assay for antibody to *T. pallidum* [MHA-TP])

*Confirmed:* a clinically compatible case that is laboratory confirmed

### Syphilis, secondary

#### Clinical description

A stage of infection caused by *T. pallidum* and characterized by localized or diffuse mucocutaneous lesions, often with generalized lymphadenopathy. The primary chancre may still be present.

#### Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, DFA-TP, or equivalent methods

#### Case classification

*Probable:* a clinically compatible case with a nontreponemal (VDRL or RPR) titer  $\geq 4$

*Confirmed:* a clinically compatible case that is laboratory confirmed

## ***Syphilis, latent***

### **Clinical description**

A stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs. Latent syphilis is subdivided into early, late, and unknown categories based on the duration of infection.

### **Case classification**

*Probable:* no clinical signs or symptoms of syphilis and the presence of one of the following:

- No past diagnosis of syphilis, a reactive nontreponemal test (i.e., VDRL or RPR), and a reactive treponemal test (i.e., FTA-ABS or MHA-TP)
- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer

## ***Syphilis, early latent***

### **Clinical description**

A subcategory of latent syphilis. When initial infection has occurred within the previous 12 months, latent syphilis is classified as early latent.

### **Case classification**

*Probable:* latent syphilis (see Syphilis, latent) in a person who has evidence of having acquired the infection within the previous 12 months based on one or more of the following criteria:

- Documented seroconversion or fourfold or greater increase in titer of a nontreponemal test during the previous 12 months
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner who had confirmed or probable primary or secondary syphilis or probable early latent syphilis (documented independently as duration <1 year)
- Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the preceding 12 months

## ***Syphilis, late latent***

### **Clinical description**

A subcategory of latent syphilis. When initial infection has occurred >1 year previously, latent syphilis is classified as late latent.

### **Case classification**

*Probable:* latent syphilis (see Syphilis, latent) in a patient who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early latent) and whose age and titer do not meet the criteria specified for latent syphilis of unknown duration.

## ***Syphilis, latent, of unknown duration***

### **Clinical description**

A subcategory of latent syphilis. When the date of initial infection cannot be established as having occurred within the previous year and the patient's age and titer meet criteria described below, latent syphilis is classified as latent syphilis of unknown duration.

### **Case classification**

*Probable:* latent syphilis (see Syphilis, latent) that does not meet the criteria for early latent syphilis, and the patient is aged 13–35 years and has a nontreponemal titer  $\geq 32$

## Neurosyphilis

### Note

Since neurosyphilis can occur at almost any stage of syphilis, between 1996 and 2005, it was classified and reported as one of several mutually exclusive stages of syphilis. In 2005, the Division of STD Prevention requested that STD control programs discontinue classifying and reporting neurosyphilis as a distinct stage of syphilis. Since 2005, if the patient has confirmed or probably neurosyphilis, the case should be reported as the appropriate state of syphilis and neurological manifestations should be noted.

### Clinical description

Evidence of central nervous system infection with *T. pallidum*

### Laboratory criteria for diagnosis

- A reactive serologic test for syphilis and reactive VDRL in cerebrospinal fluid (CSF) Case classification

### Case classification

*Probable:* syphilis of any stage, a negative VDRL in CSF, and both of the following:

- Elevated CSF protein or leukocyte count in the absence of other known causes of these abnormalities
- Clinical symptoms or signs consistent with neurosyphilis without other known causes for these clinical abnormalities

*Confirmed:* syphilis of any stage that meets the laboratory criteria for neurosyphilis

## Syphilis, late, with clinical manifestations other than neurosyphilis (late benign syphilis and cardiovascular syphilis)

### Clinical description

Clinical manifestations of late syphilis other than neurosyphilis may include inflammatory lesions of the cardiovascular system, skin, and bone. Rarely, other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle) may be involved. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection.

### Laboratory criteria for diagnosis

Demonstration of *T. pallidum* in late lesions by fluorescent antibody or special stains (although organisms are rarely visualized in late lesions)

### Case classification

*Probable:* characteristic abnormalities or lesions of the cardiovascular system, skin, bone, or other structures with a reactive treponemal test, in the absence of other known causes of these abnormalities, and without CSF abnormalities and clinical symptoms or signs consistent with neurosyphilis

*Confirmed:* a clinically compatible case that is laboratory confirmed

### Comment

Analysis of CSF for evidence of neurosyphilis is necessary in the evaluation of late syphilis with clinical manifestations.

## Syphilitic Stillbirth

### Clinical description

A fetal death that occurs after a 20-week gestation or in which the fetus weighs >500 g and the mother had untreated or inadequately treated\* syphilis at delivery

### Comment

For reporting purposes, syphilitic stillbirths should be reported as cases of congenital syphilis.

## Syphilis, Congenital (Revised 9/96)

### Clinical description

A condition caused by infection in utero with *Treponema pallidum*. A wide spectrum of severity exists, and only severe cases are clinically apparent at birth. An infant or child (aged <2 years) may have signs such as hepatosplenomegaly, rash, condyloma lata, snuffles, jaundice (nonviral hepatitis), pseudoparalysis, anemia, or edema (nephrotic syndrome and/or malnutrition). An older child may have stigmata (e.g., interstitial keratitis, nerve deafness, anterior bowing of shins, frontal bossing, mulberry molars, Hutchinson teeth, saddle nose, rhagades, or Clutton joints).

### Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* by darkfield microscopy, fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material

### Case classification

**Probable:** a condition affecting an infant whose mother had untreated or inadequately treated\* syphilis at delivery, regardless of signs in the infant, or an infant or child who has a reactive treponemal test for syphilis and any one of the following:

- Any evidence of congenital syphilis on physical examination
- Any evidence of congenital syphilis on radiographs of long bones
- A reactive cerebrospinal fluid (CSF) venereal disease research laboratory (VDRL)
- An elevated CSF cell count or protein (without other cause)
- A reactive fluorescent treponemal antibody absorbed—19S-IgM antibody test or IgM enzyme-linked immunosorbent assay

**Confirmed:** a case that is laboratory confirmed

### Comment

Congenital and acquired syphilis may be difficult to distinguish when a child is seropositive after infancy. Signs of congenital syphilis may not be obvious, and stigmata may not yet have developed. Abnormal values for CSF VDRL, cell count, and protein, as well as IgM antibodies, may be found in either congenital or acquired syphilis. Findings on radiographs of long bones may help because radiographic changes in the metaphysis and epiphysis are considered classic signs of congenitally acquired syphilis. The decision may ultimately be based on maternal history and clinical judgment. In a young child, the possibility of sexual abuse should be considered as a cause of acquired rather than congenital syphilis, depending on the clinical picture. For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

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\* Inadequate treatment consists of any nonpenicillin therapy or penicillin administered <30 days before delivery.

<sup>1</sup> Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. MMWR Morb Mortal Wkly Rep. 1997;46(No. RR-10).

## PART 2. CASE DEFINITIONS<sup>1</sup> FOR NON-NOTIFIABLE INFECTIOUS DISEASES

### Genital Herpes (Herpes Simplex Virus) (Revised 9/96)

#### *Clinical description*

A condition characterized by visible, painful genital or anal lesions

#### *Laboratory criteria for diagnosis*

- Isolation of herpes simplex virus from cervix, urethra, or anogenital lesion, or
- Demonstration of virus by antigen detection technique in clinical specimens from cervix, urethra, or anogenital lesion, or
- Demonstration of multinucleated giant cells on a Tzanck smear of scrapings from an anogenital lesion

#### *Case classification*

*Probable:* a clinically compatible case (in which primary and secondary syphilis have been excluded by appropriate serologic tests and darkfield microscopy, when available) with either a diagnosis of genital herpes based on clinical presentation (without laboratory confirmation) or a history of one or more previous episodes of similar genital lesions

*Confirmed:* a clinically compatible case that is laboratory confirmed

#### *Comment*

Genital herpes should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

### Genital Warts (Revised 9/96)

#### *Clinical description*

An infection characterized by the presence of visible, exophytic (raised) growths on the internal or external genitalia, perineum, or perianal region

#### *Laboratory criteria for diagnosis*

- Histopathologic changes characteristic of human papillomavirus infection in specimens obtained by biopsy or exfoliative cytology or
- Demonstration of virus by antigen or nucleic acid detection in a lesion biopsy

#### *Case classification*

*Probable:* a clinically compatible case without histopathologic diagnosis and without microscopic or serologic evidence that the growth is the result of secondary syphilis

*Confirmed:* a clinically compatible case that is laboratory confirmed

#### *Comment*

Genital warts should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

## Granuloma Inguinale

### Clinical description

A slowly progressive ulcerative disease of the skin and lymphatics of the genital and perianal area caused by infection with *Calymmatobacterium granulomatis*. A clinically compatible case would have one or more painless or minimally painful granulomatous lesions in the anogenital area.

### Laboratory criteria for diagnosis

- Demonstration of intracytoplasmic Donovan bodies in Wright or Giemsa-stained smears or biopsies of granulation tissue

### Case classification

*Confirmed*: a clinically compatible case that is laboratory confirmed

## Lymphogranuloma Venereum

### Clinical description

Infection with L1, L2, or L3 serovars of *Chlamydia trachomatis* may result in a disease characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis. The infection is usually sexually transmitted.

### Laboratory criteria for diagnosis

- Isolation of *C. trachomatis*, serotype L1, L2, or L3 from clinical specimen, or
- Demonstration by immunofluorescence of inclusion bodies in leukocytes of an inguinal lymph node (bubo) aspirate, or
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis*

### Case classification

*Probable*: a clinically compatible case with one or more tender fluctuant inguinal lymph nodes or characteristic proctogenital lesions with supportive laboratory findings of a single *C. trachomatis* complement fixation titer of >64

*Confirmed*: a clinically compatible case that is laboratory confirmed

## Mucopurulent Cervicitis (Revised 9/96)

### Clinical description

Cervical inflammation that is not the result of infection with *Neisseria gonorrhoeae* or *Trichomonas vaginalis*. Cervical inflammation is defined by the presence of one of the following criteria:

- Mucopurulent secretion (from the endocervix) that is yellow or green when viewed on a white, cotton-tipped swab (positive swab test)
- Induced endocervical bleeding (bleeding when the first swab is placed in the endocervix)

### Laboratory criteria for diagnosis

- No evidence of *N. gonorrhoeae* by culture, Gram stain, or antigen or nucleic acid detection, and no evidence of *T. vaginalis* on wet mount



## Case classification

*Confirmed:* a clinically compatible case in a female who does not have either gonorrhea or trichomoniasis

## Comment

Mucopurulent cervicitis (MPC) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *Chlamydia trachomatis*, Genital Infections). If gonorrhea, trichomoniasis, and chlamydia are excluded, a clinically compatible illness should be classified as MPC. An illness in a female that meets the case definition of MPC and *C. trachomatis* infection should be classified as chlamydia.

## Nongonococcal Urethritis (Revised 9/96)

### Clinical description

Urethral inflammation that is not the result of infection with *Neisseria gonorrhoeae*. Urethral inflammation may be diagnosed by the presence of one of the following criteria:

- A visible abnormal urethral discharge, or
- A positive leukocyte esterase test from a male aged <60 years who does not have a history of kidney disease or bladder infection, prostate enlargement, urogenital anatomic anomaly, or recent urinary tract instrumentation, or
- Microscopic evidence of urethritis ( $\geq 5$  white blood cells per high-power field) on a Gram stain of a urethral smear

### Laboratory criteria for diagnosis

- No evidence of *N. gonorrhoeae* infection by culture, Gram stain, or antigen or nucleic acid detection

## Case classification

*Confirmed:* a clinically compatible case in a male in whom gonorrhea is not found, either by culture, Gram stain, or antigen or nucleic acid detection

## Comment

Nongonococcal urethritis (NGU) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *Chlamydia trachomatis*, Genital Infection). If gonorrhea and chlamydia are excluded, a clinically compatible illness should be classified as NGU. An illness in a male that meets the case definition of NGU and *C. trachomatis* infection should be classified as chlamydia.

## Pelvic Inflammatory Disease (Revised 9/96)

### Clinical case definition

A clinical syndrome resulting from the ascending spread of microorganisms from the vagina and endocervix to the endometrium, fallopian tubes, and/or contiguous structures. In a female who has lower abdominal pain and who has not been diagnosed as having an established cause other than pelvic inflammatory disease (PID) (e.g., ectopic pregnancy, acute appendicitis, and functional pain), all the following clinical criteria must be present:

- Lower abdominal tenderness, and
- Tenderness with motion of the cervix, and
- Adnexal tenderness



In addition to the preceding criteria, at least one of the following findings must also be present:

- Meets the surveillance case definition of *C. trachomatis* infection or gonorrhea
- Temperature >100.4 F (>38.0 C)
- Leukocytosis >10,000 white blood cells/mm<sup>3</sup>
- Purulent material in the peritoneal cavity obtained by culdocentesis or laparoscopy
- Pelvic abscess or inflammatory complex detected by bimanual examination or by sonography
- Patient is a sexual contact of a person known to have gonorrhea, chlamydia, or nongonococcal urethritis

### **Case classification**

*Confirmed:* a case that meets the clinical case definition

### **Comment**

For reporting purposes, a clinician's report of PID should be counted as a case.

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<sup>1</sup> Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance, 1997. MMWR Morb Mortal Wkly Rep. 1997;46(No. RR-10).